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THE ENVIRONMENTAL EFFECTS OF TIMBER HARVESTING OPERATIONS IN ALBERTA

MAPS AND MAP OVERLAYS

Alberta
LANDS AND FORESTS

These maps were originally printed on transparent overlays.

1L Alta. 2L Schultz (C.D.) & Company

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THE ENVIRONMENTAL EFFECTS OF TIMBER HARVESTING OPERATIONS
IN THE
EDSON AND GRANDE PRAIRIE FORESTS OF ALBERTA

VOLUME 2
MAPS AND MAP OVERLAYS
SEPTEMBER, 1973

FOR
GOVERNMENT OF ALBERTA
EDMONTON, ALBERTA
BY
C. D. SCHULTZ & COMPANY LIMITED

AL/L35/A18/1973/E5-2M

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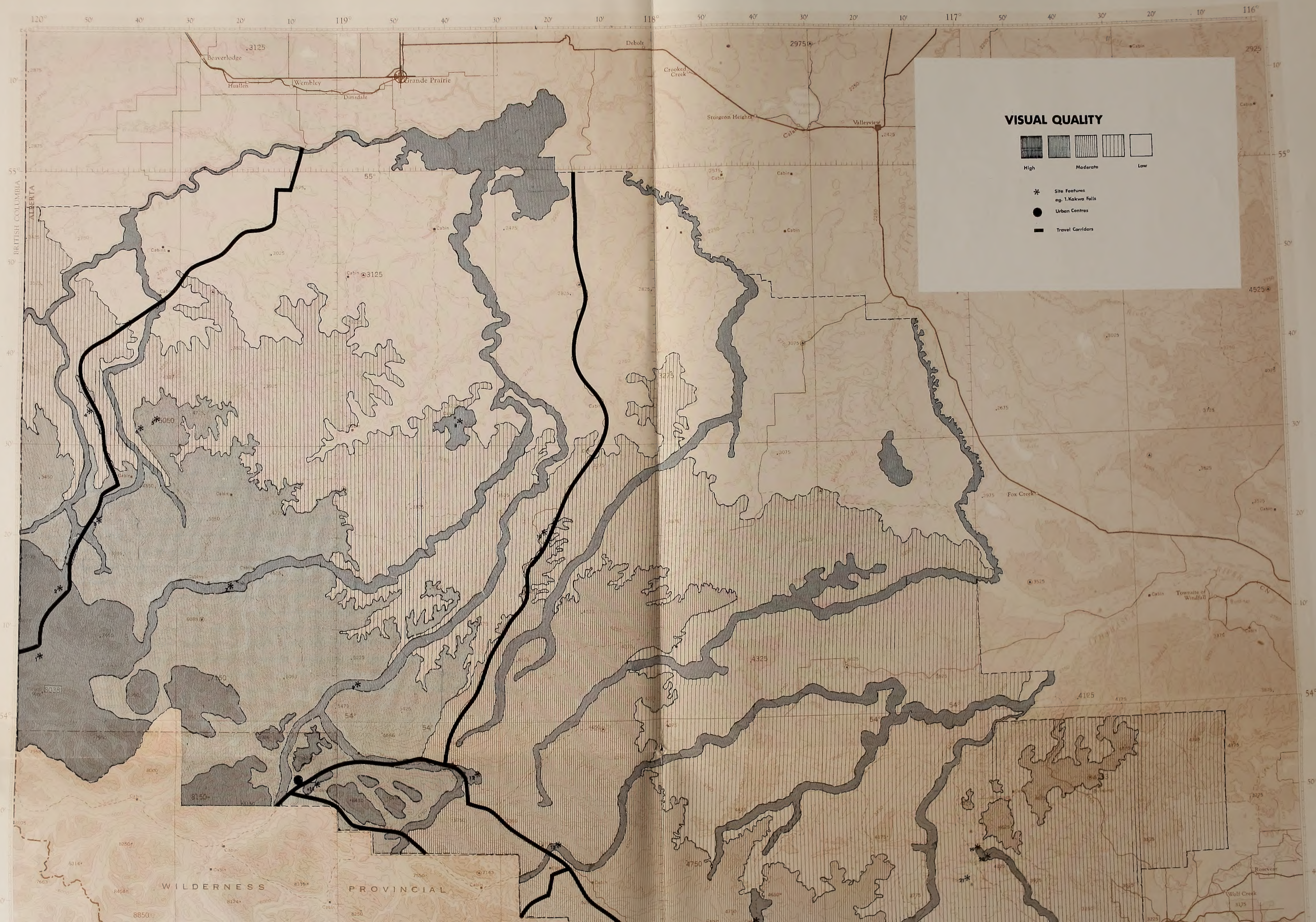
INTRODUCTION

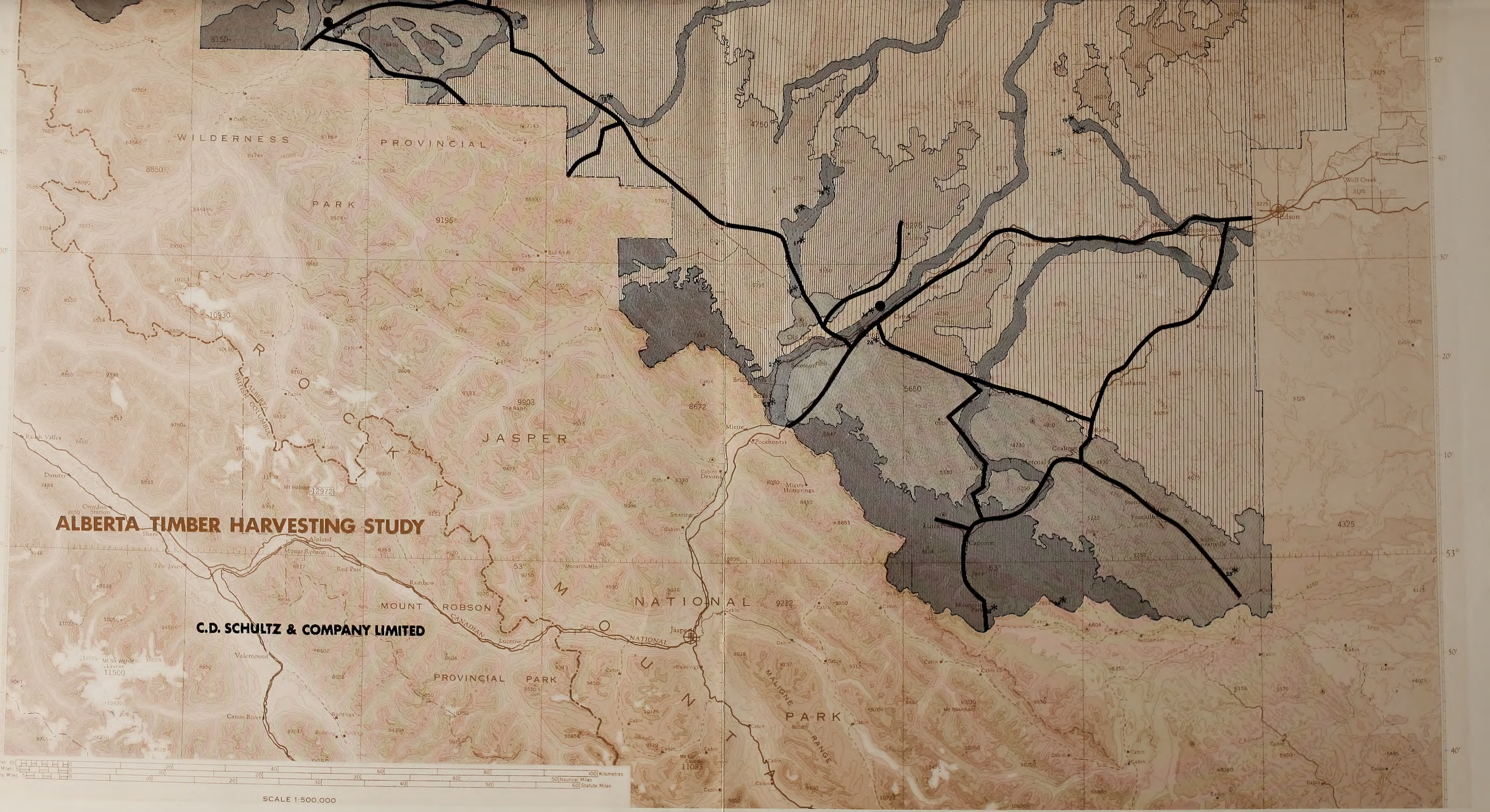
THESE MAP OVERLAYS ARE INTENDED TO PROVIDE A GENERALIZED PICTURE OF FACTORS WHICH SHOULD INFLUENCE LAND MANAGEMENT ON THE PROJECT AREA.

THE BASE MAP, PREPARED FROM NATIONAL TOPOGRAPHIC SERIES MAPS, IS AT A SCALE OF 1:500,000 (1 INCH TO 7.89 MILES). THE TRANSPARENT OVERLAYS WERE REDUCED TO THIS COMMON SCALE, AND PERMIT STUDY OF ENVIRONMENTAL FEATURES INDIVIDUALLY, IN RELATION TO FEATURES MAPPED ON OTHER OVERLAYS. THE CHOSEN MAPPING SCALE WAS APPROPRIATE FOR TREATMENT OF THE ENTIRE PROJECT AREA, BUT WOULD NOT PROVIDE SUFFICIENT DETAIL FOR MANAGEMENT ON ANY PORTION. ONE ADDITIONAL MAP, THE ENERGY DEVELOPMENT MAP, WAS ADDED IN OPAQUE FORM TO AVOID CONFUSION.

ON THE OVERLAYS, A SYSTEM OF SHADING IS USED TO INDICATE THE SENSITIVITY OF A GIVEN ELEMENT OF THE ENVIRONMENT, OR THE DEGREE OF CARE REQUIRED DURING HARVESTING OR OTHER OPERATIONS TO GIVE IT ADEQUATE PROTECTION. DARK SHADING INDICATES HIGH SENSITIVITY, OFTEN ACCOMPANIED BY A NEED FOR SPECIAL CARE. THIS IS TRUE OF INDIVIDUAL OVERLAYS, AND OF OVERLAYS VIEWED IN COMBINATION.

FINDINGS AND RECOMMENDATIONS IN VOLUME 1 ARE BASED ON THE RELATIONSHIPS ILLUSTRATED BY THESE OVERLAYS.


VISUAL QUALITY
High
Moderate
Low
* Site Features eg. 1. Kakwa Falls
● Urban Centres
▬ Travel Corridors
BRITISH COLUMBIA
ALBERTA
Beaverlodge
Hythe
Wembley
Grande Prairie
Dimsdale
Debolt
Crooked Creek
Sturgeon Heights
Valleyview
Fox Creek
Townsite of Windfall
Rosevear
Wolf Creek
WILDERNESS
PROVINCIAL
Cabin
120°
119°
118°
117°
116°
55°
54°
50'
40'
30'
20'
10'
3125
2975
2925
3275
4325
4125
4525
4750
8150
8850



ALBERTA TIMBER HARVESTING STUDY

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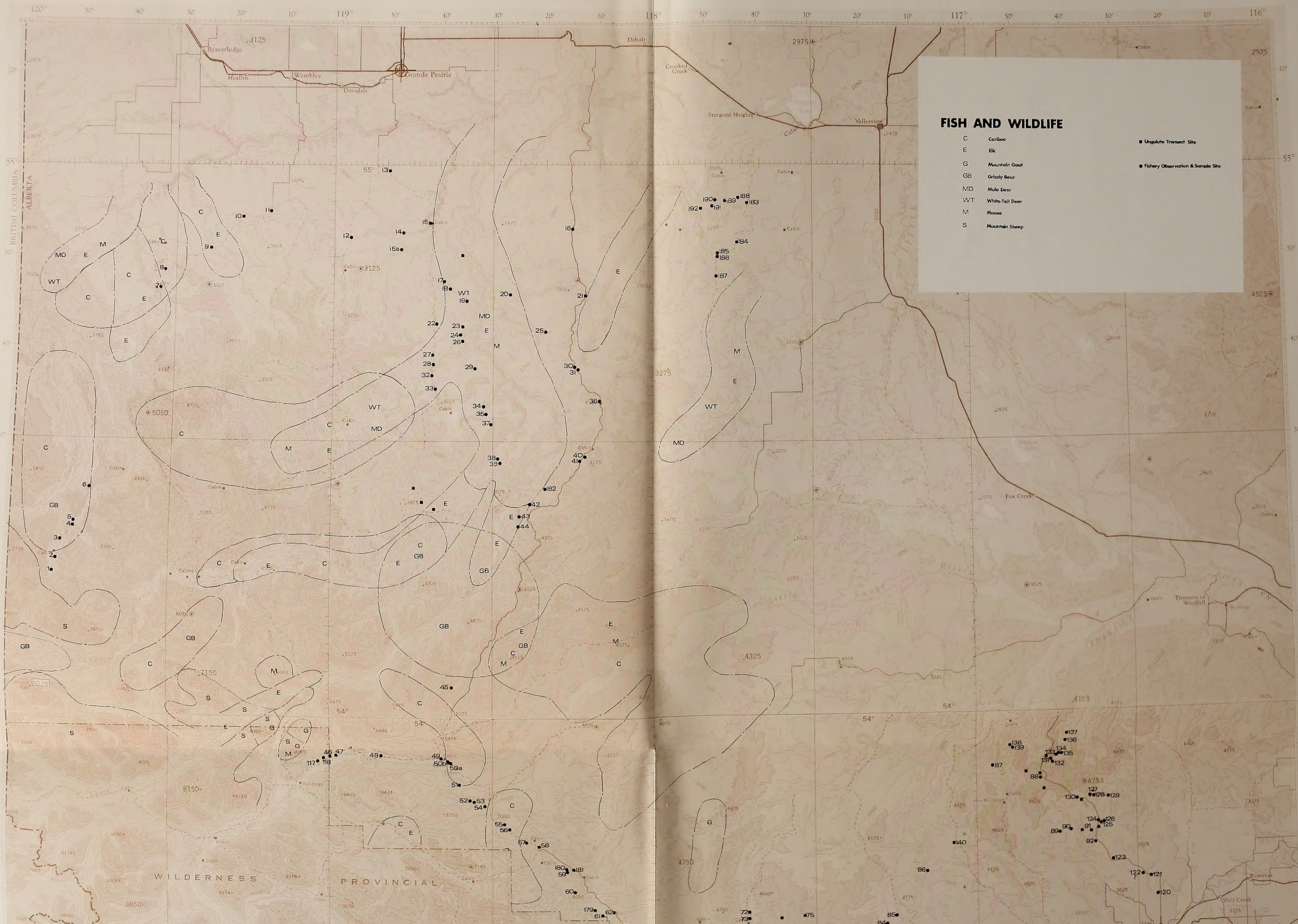
FISH AND WILDLIFE
C Cariboo
E Elk
G Mountain Goat
GB Grizzly Bear
MD Mule Deer
WT White-Tail Deer
M Moose
S Mountain Sheep
■ Unguiate Transect Site
● Fishery Observation & Sample Site
120°
119°
118°
117°
116°
55°
54°
BRITISH COLUMBIA
ALBERTA
Beaverlodge
Hythe
Wembley
Grande Prairie
Dimsdale
Debolt
Crooked Creek
Sturgeon Heights
Valleyview
Fox Creek
Townsite of Windfall
Rosevear
Wolf Creek
Mount Ida
WILDERNESS
PROVINCIAL
Cabin
Smoky
Little Smoky

ALBERTA TIMBER HARVESTING STUDY

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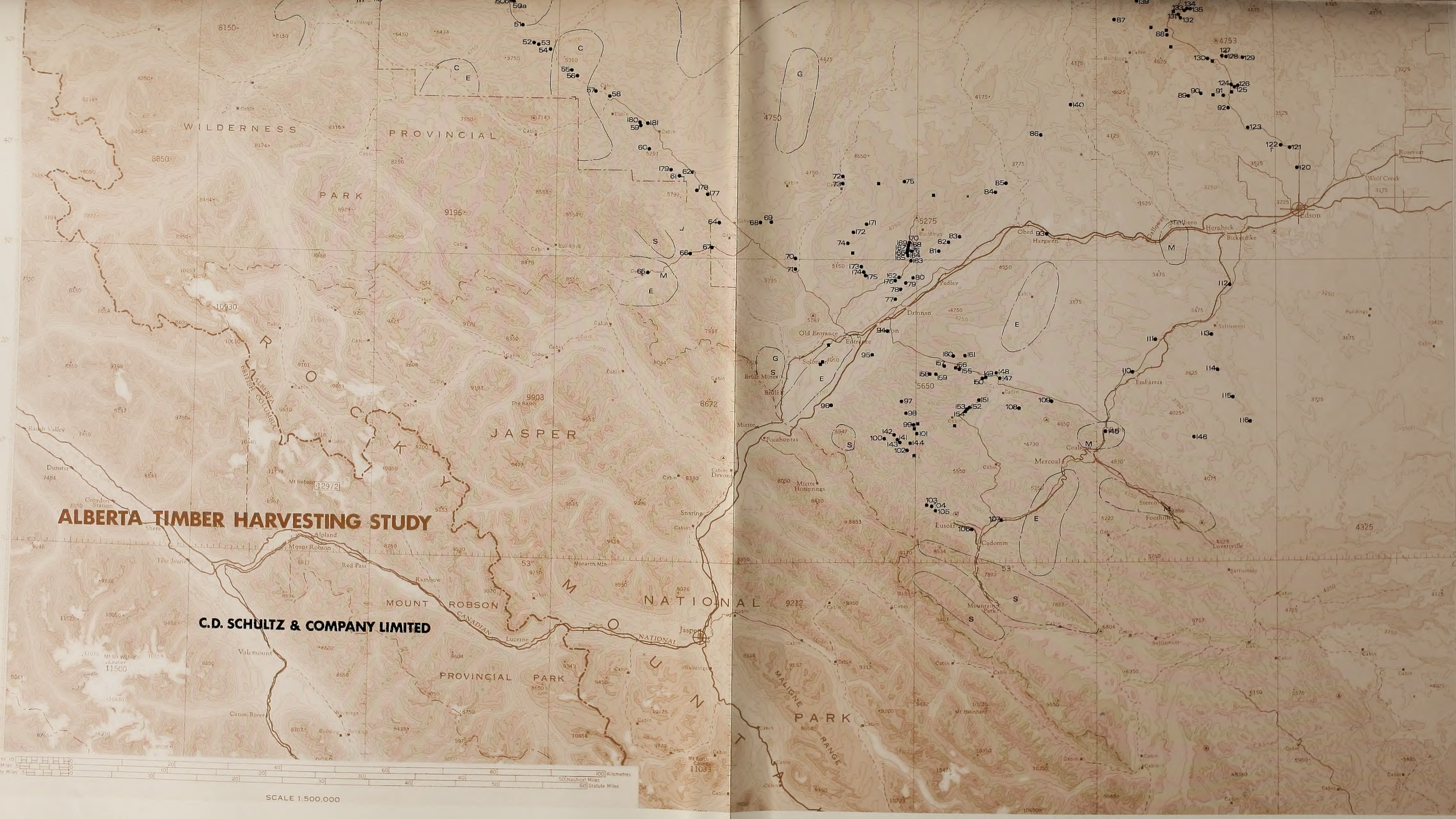

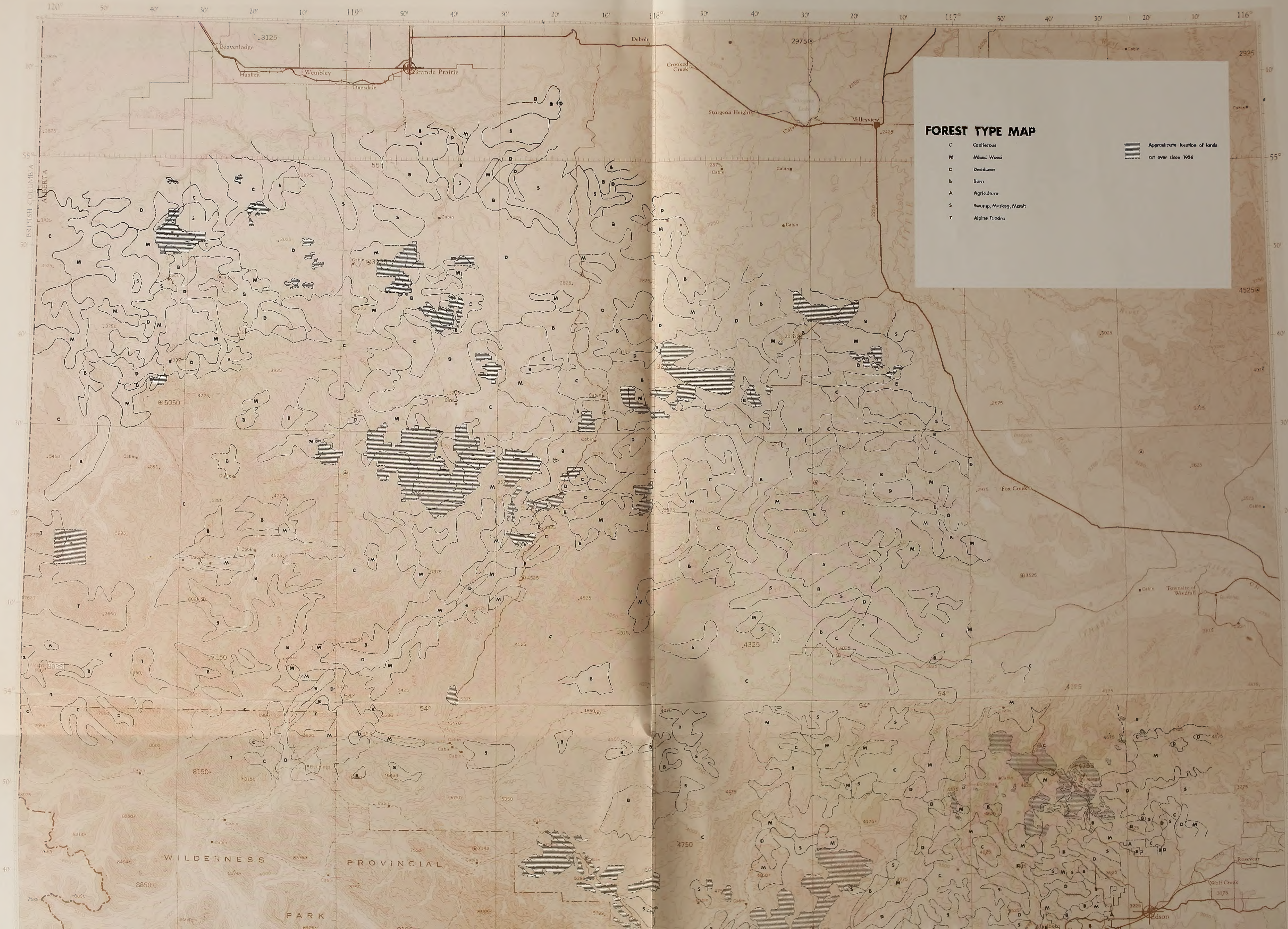

FOREST TYPE MAP

ALBERTA TIMBER HARVESTING STUDY

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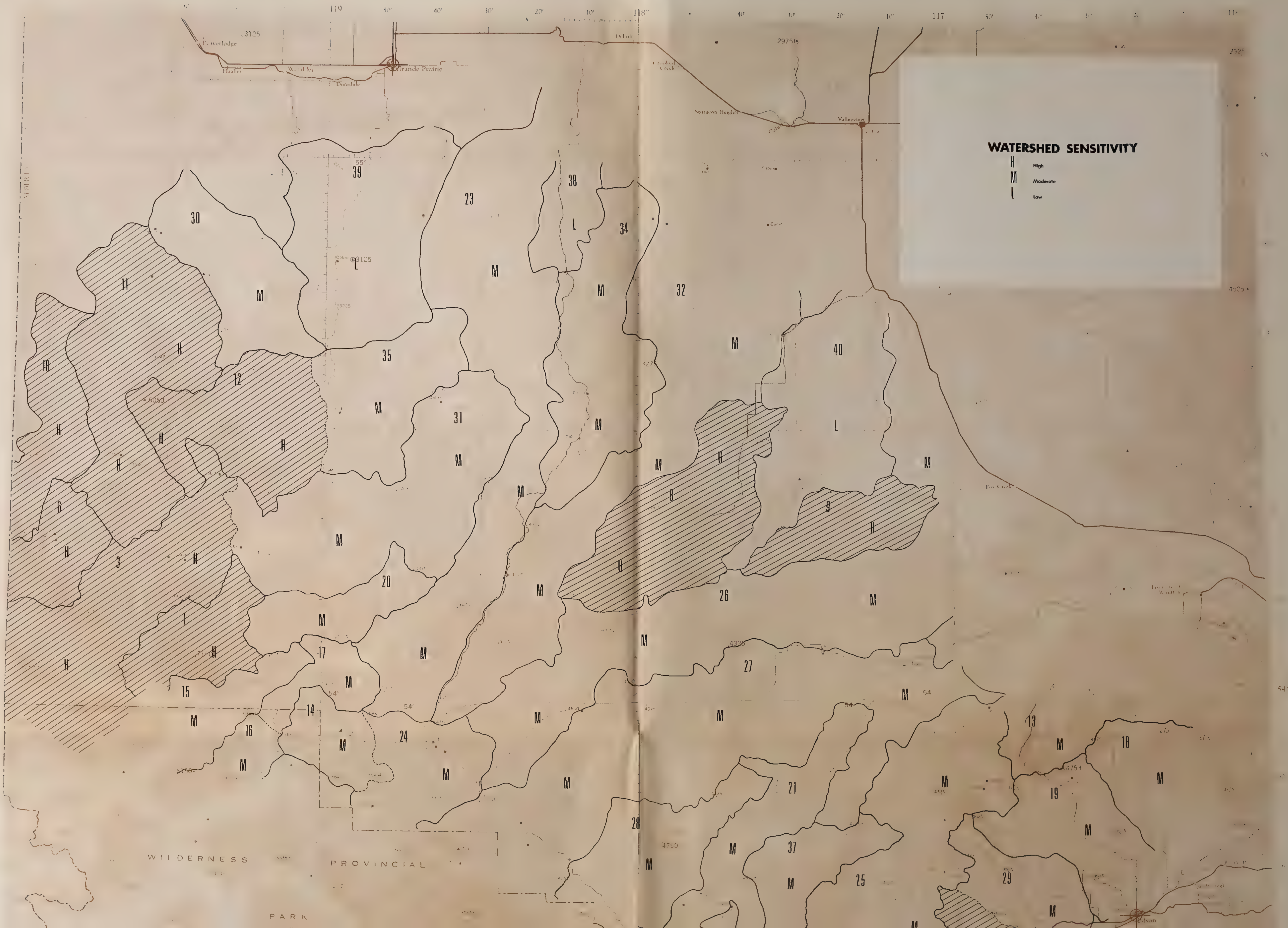
WATERSHED SENSITIVITY
H High
M Moderate
L Low
119
118°
117
55°
54°
Grande Prairie
Wembley
Debolt
Crooked Creek
Sturgeon Heights
Valleyview
Fox Creek
WILDERNESS
PROVINCIAL
PARK
1
3
6
8
9
10
11
12
13
14
15
16
17
18
19
20
21
23
24
25
26
27
28
29
30
31
32
34
35
37
38
39
40

ALBERTA TIMBER HARVESTING STUDY

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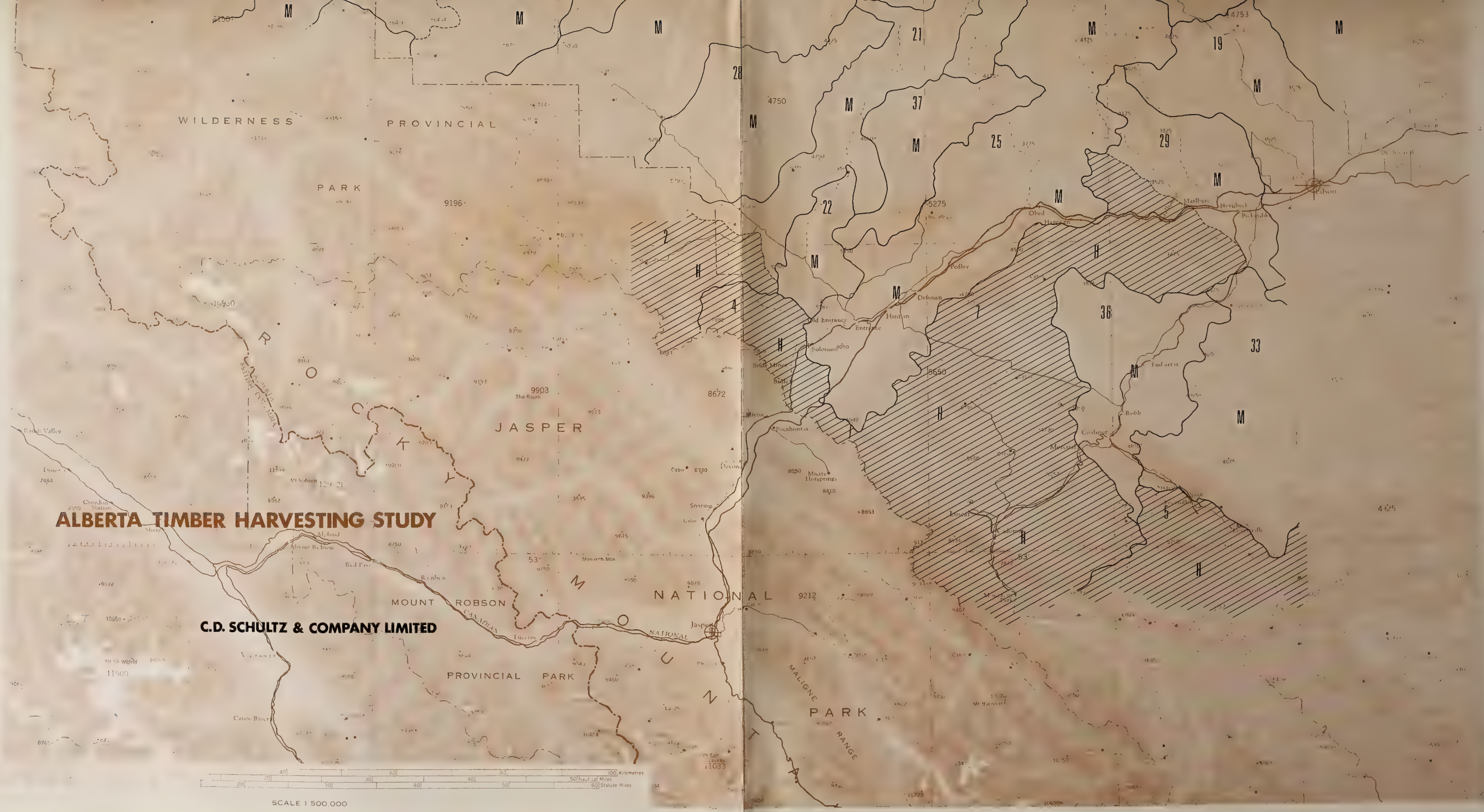
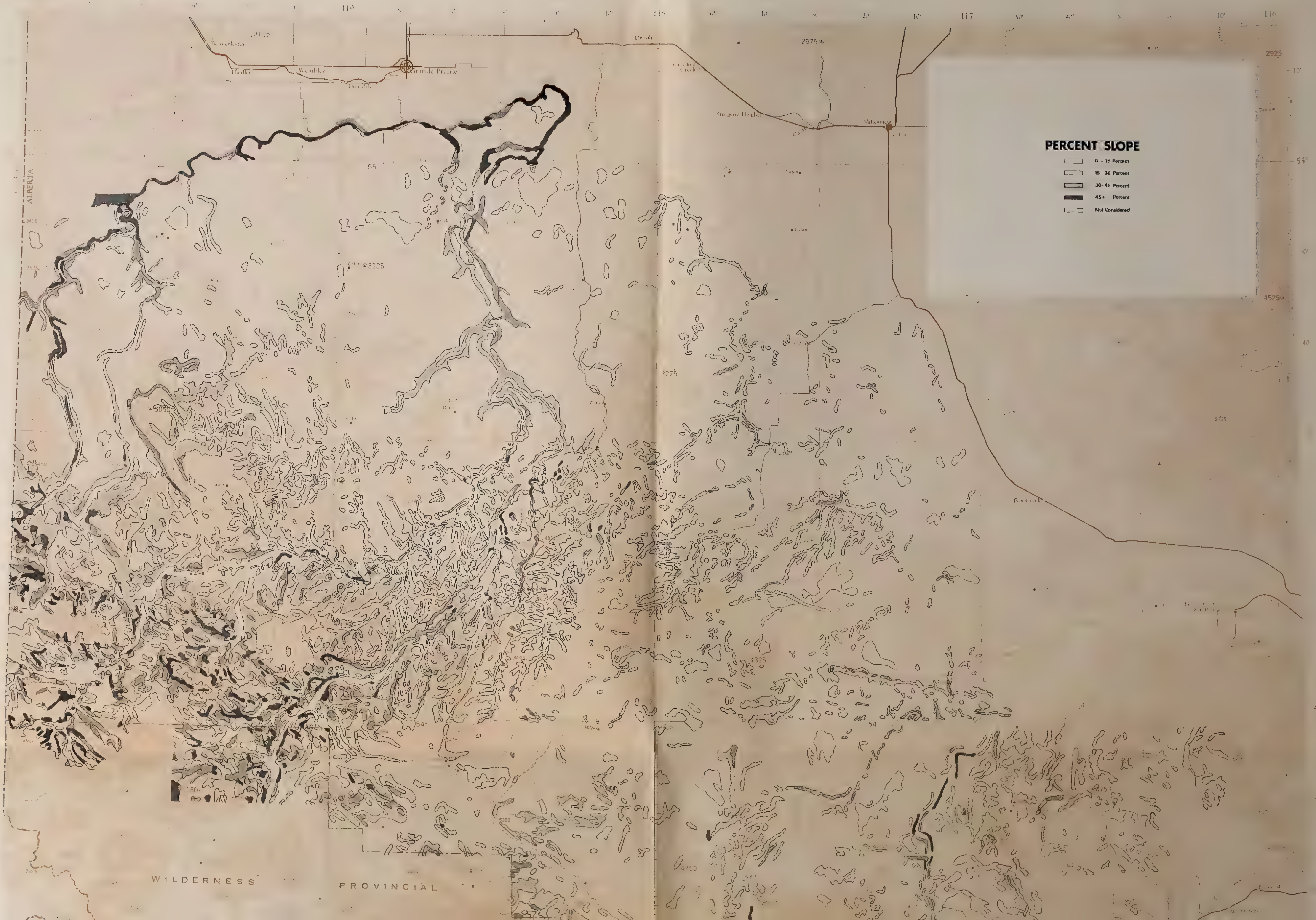
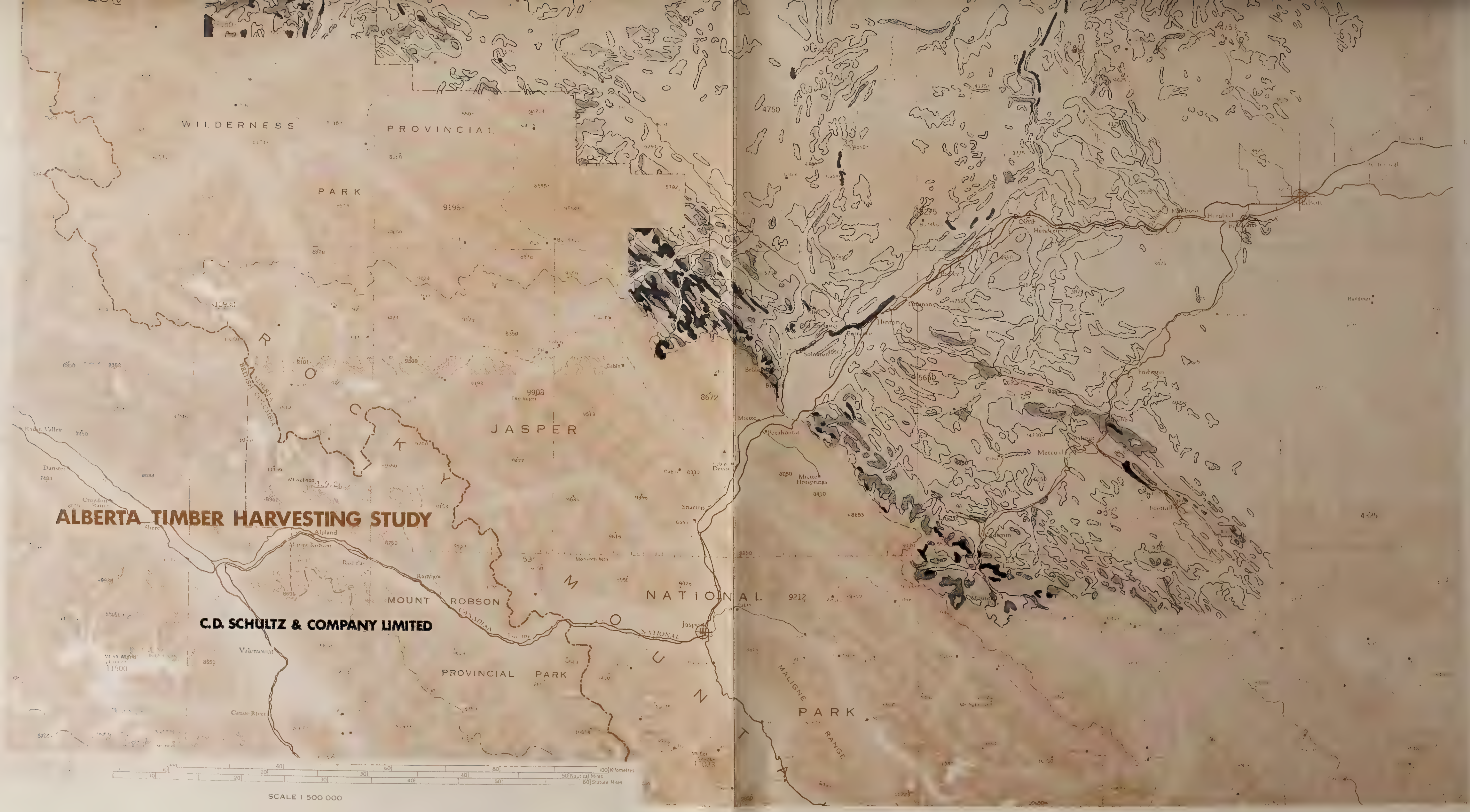
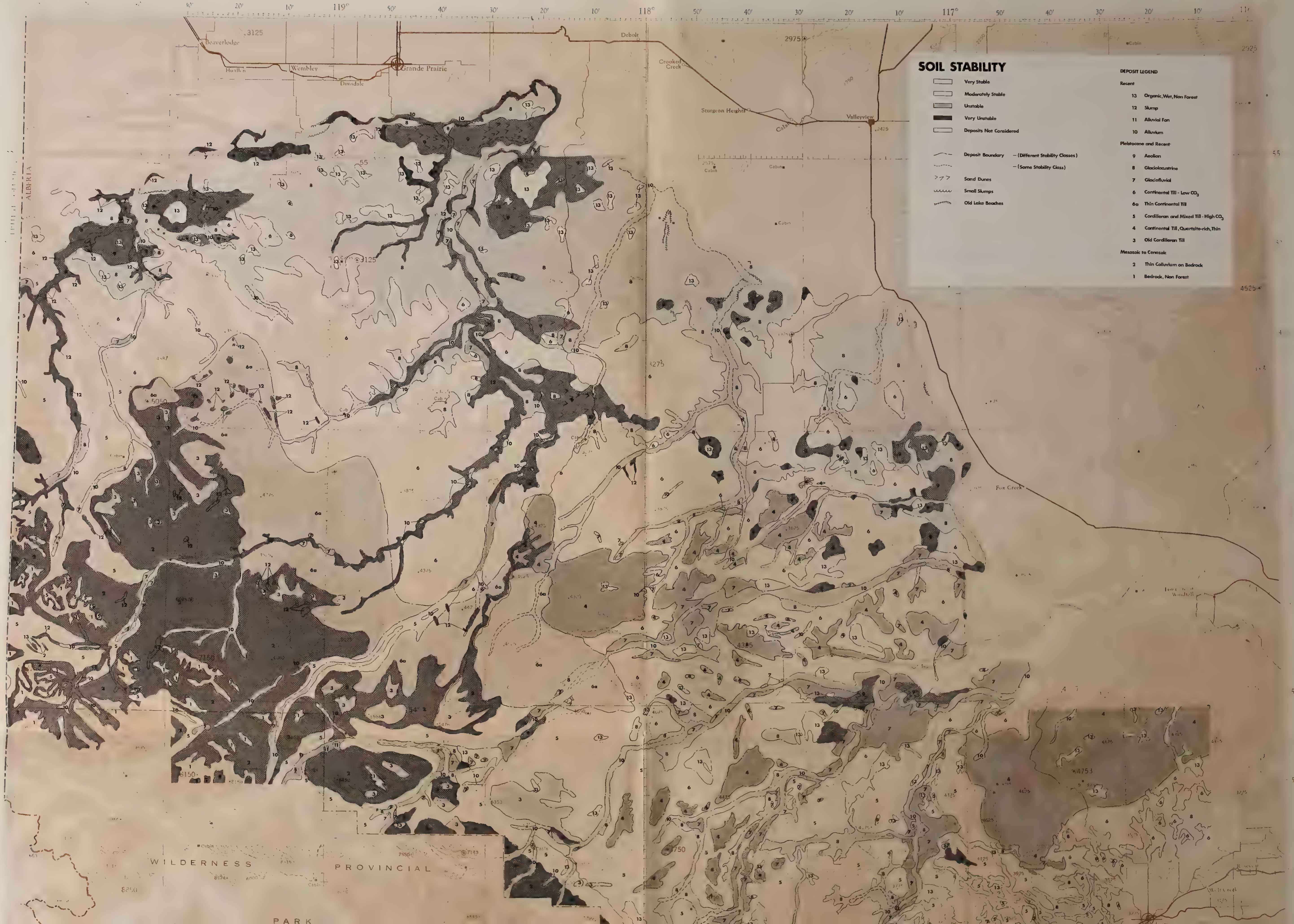


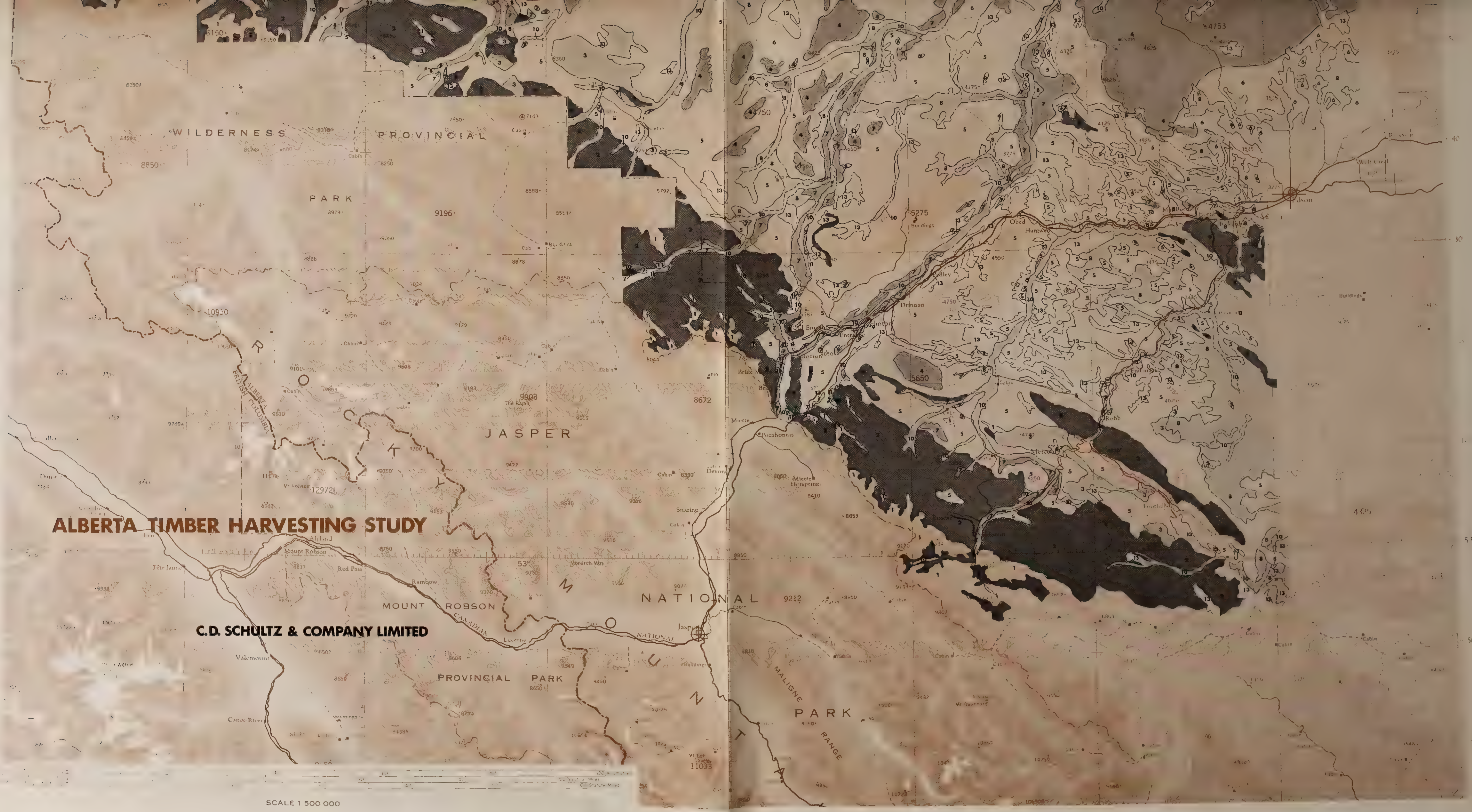

PERCENT SLOPE
0 - 15 Percent
15 - 30 Percent
30 - 45 Percent
45+ Percent
Not Considered
Beaverlodge
3125
Hythe
Wembley
Grande Prairie
Debolt
2975
Sturgeon Heights
Valleyview
117
116
2925
55°
55
3125
ALBERTA
4275
Fox Creek
4525
4325
54
54°
4750
5350
WILDERNESS
PROVINCIAL



ALBERTA TIMBER HARVESTING STUDY

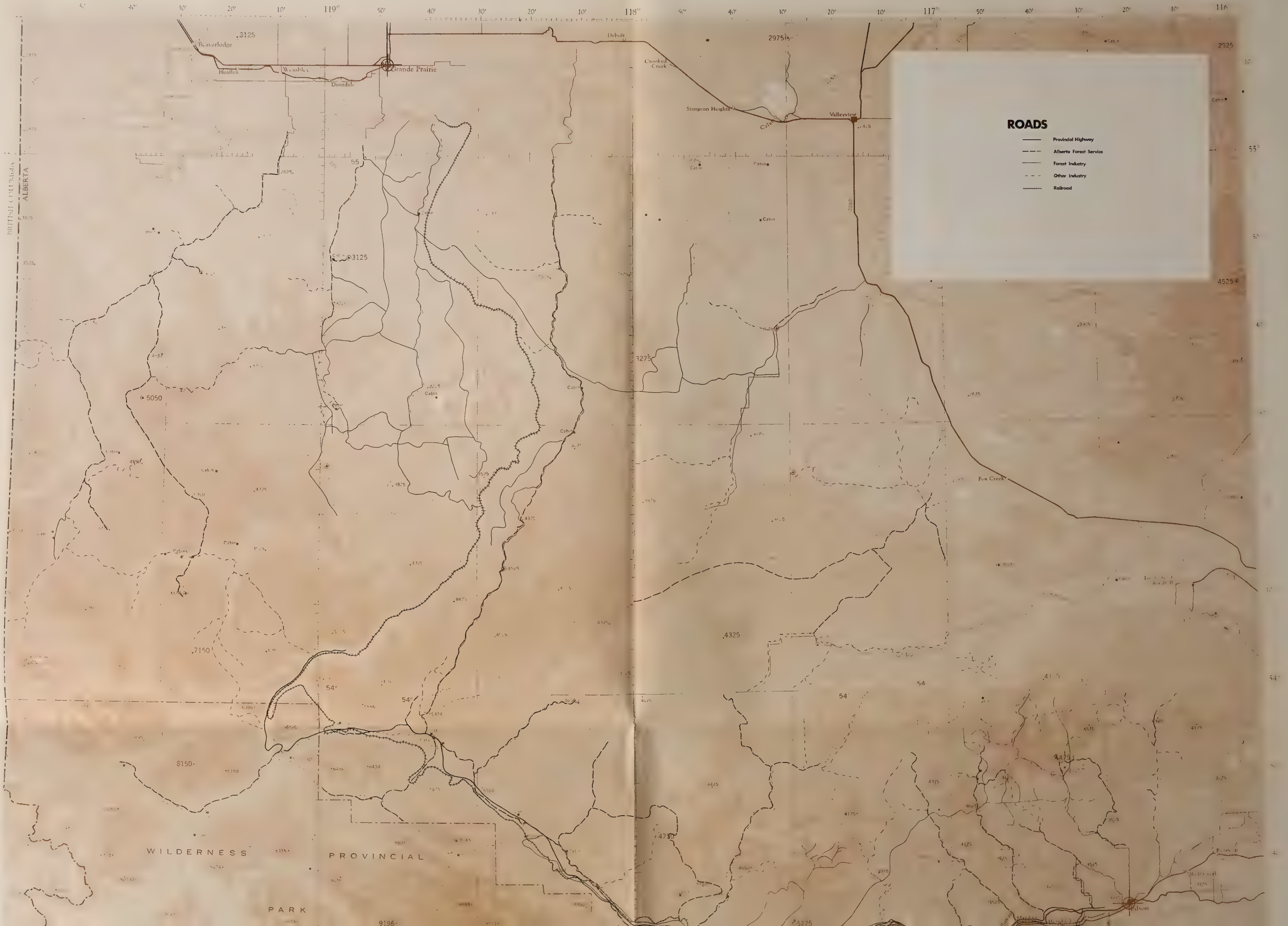
C.D. SCHULTZ & COMPANY LIMITED


SOIL STABILITY
Very Stable
Moderately Stable
Unstable
Very Unstable
Deposits Not Considered
Deposit Boundary — (Different Stability Classes)
— (Same Stability Class)
Sand Dunes
Small Slumps
Old Lake Beaches
DEPOSIT LEGEND
Recent
13 Organic, Wet, Non Forest
12 Slump
11 Alluvial Fan
10 Alluvium
Pleistocene and Recent
9 Aeolian
8 Glaciolacustrine
7 Glaciofluvial
6 Continental Till - Low CO_3
6a Thin Continental Till
5 Cordilleran and Mixed Till - High CO_3
4 Continental Till, Quartzite-rich, Thin
3 Old Cordilleran Till
Mesozoic to Cenozoic
2 Thin Colluvium on Bedrock
1 Bedrock, Non Forest
119°
118°
117°
ALBERTA
Beaverlodge
Hythe
Wembley
Grande Prairie
Dimsdale
Debolt
Crooked Creek
Sturgeon Heights
Valleyview
Fox Creek
Cabin
WILDERNESS
PROVINCIAL
PARK



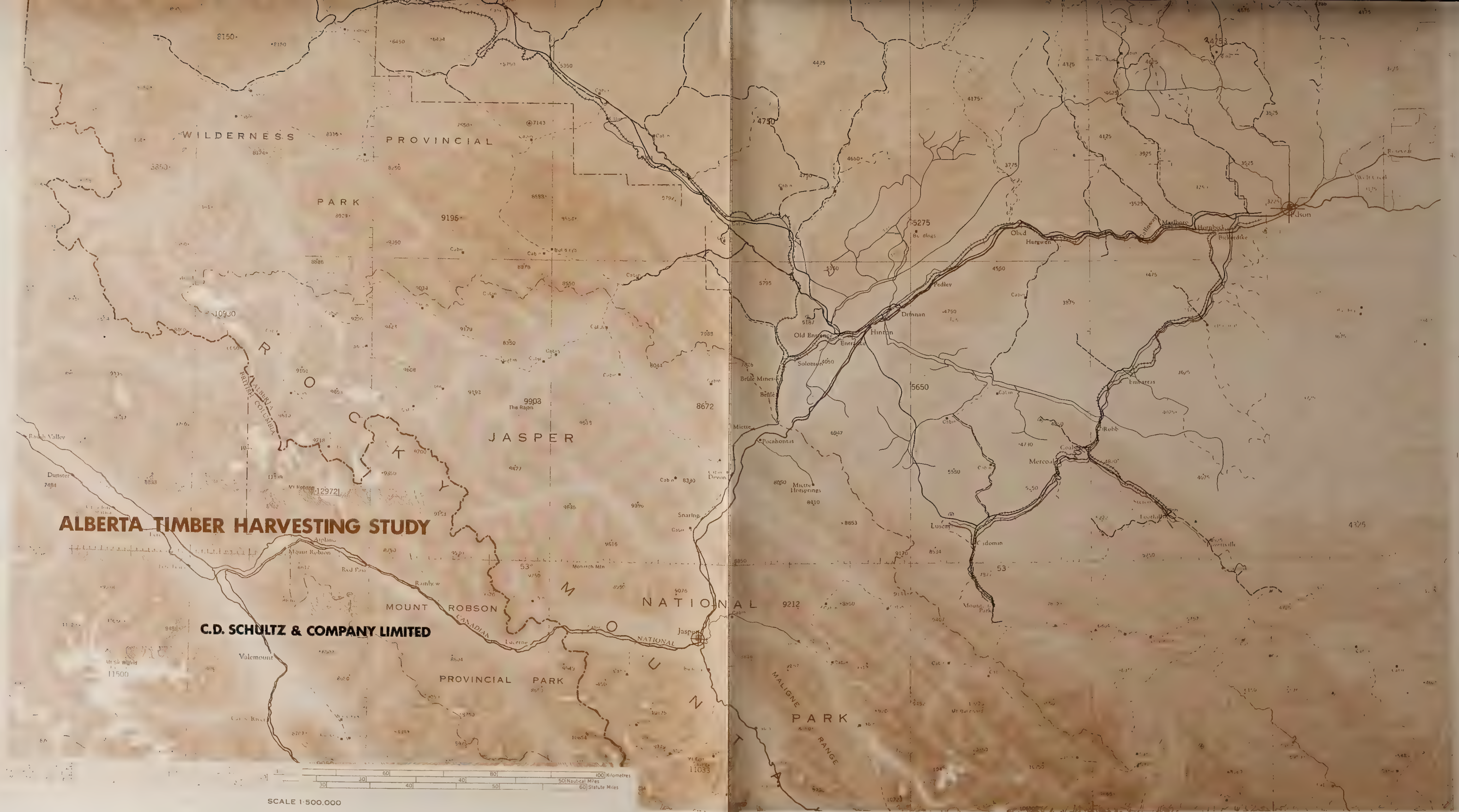
ALBERTA TIMBER HARVESTING STUDY

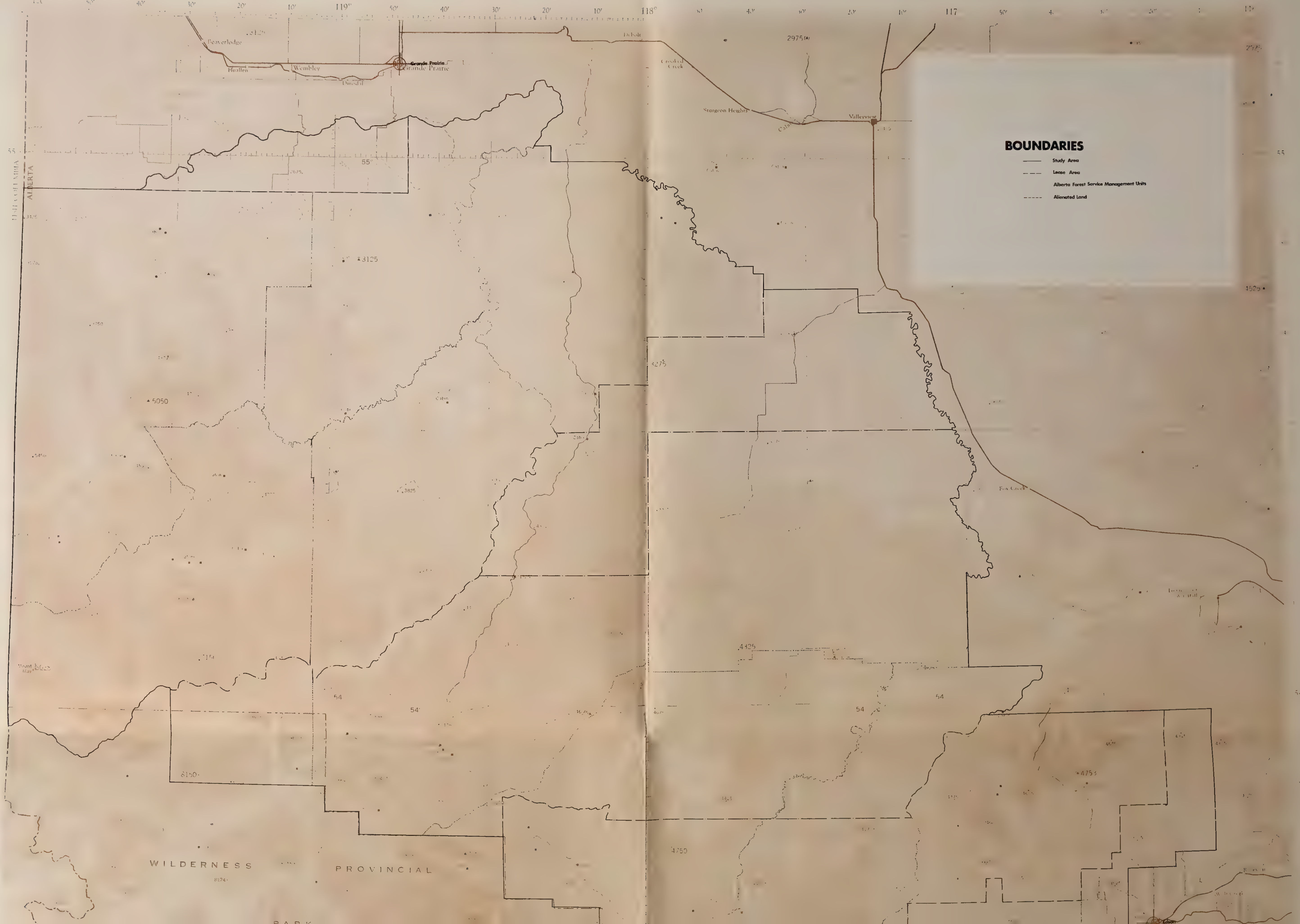
C.D. SCHULTZ & COMPANY LIMITED

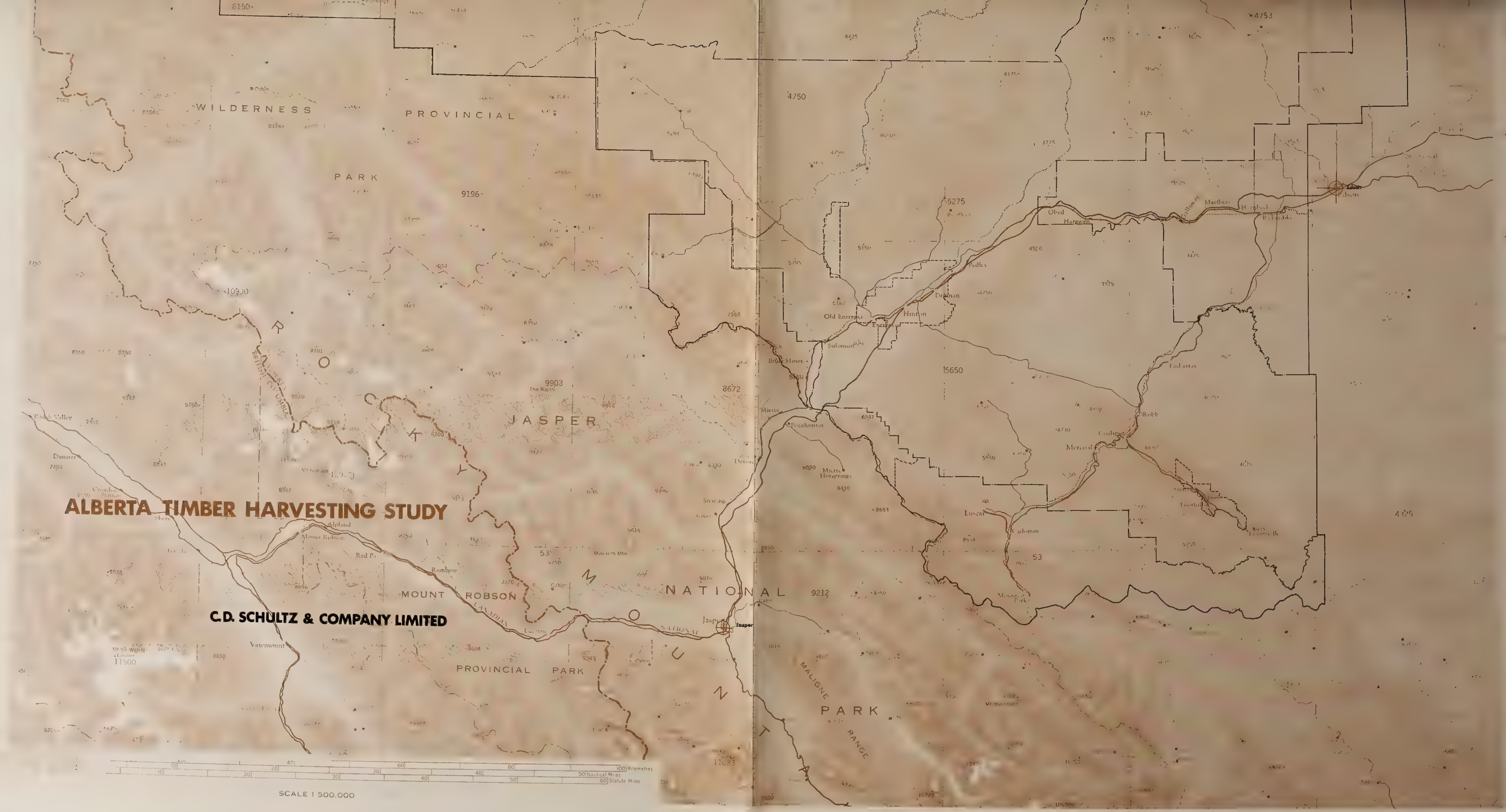

ROADS
Provincial Highway
Alberta Forest Service
Forest Industry
Other Industry
Railroad
119°
118°
117°
116
55°
54°
50'
40'
30'
20'
10'
BRITISH COLUMBIA
ALBERTA
Beaverlodge
Hualien
Wembley
Dimsdale
Grande Prairie
Debolt
Crooked Creek
Sturgeon Heights
Valleyview
Fox Creek
Edson
Wolf Creek
Cabin
3125
2975
2925
3275
4325
4525
5050
7150
8150
9196
4750
5275
4475
55
54
WILDERNESS
PROVINCIAL
PARK

ALBERTA TIMBER HARVESTING STUDY

C.D. SCHULTZ & COMPANY LIMITED




BOUNDARIES
Study Area
Lease Area
Alberta Forest Service Management Units
Alienated Land
119°
118°
117
55
54
BRITISH COLUMBIA
ALBERTA
Beaverlodge
Hythe
Wembley
Dimsdale
Grande Prairie
Grande Prairie
DeBolt
Crooked Creek
Sturgeon Heights
Calais
Valleyview
2975
3125
5050
3825
4275
4325
4750
6150
4755
Fox Creek
WILDERNESS
PROVINCIAL
PARK



ALBERTA TIMBER HARVESTING STUDY

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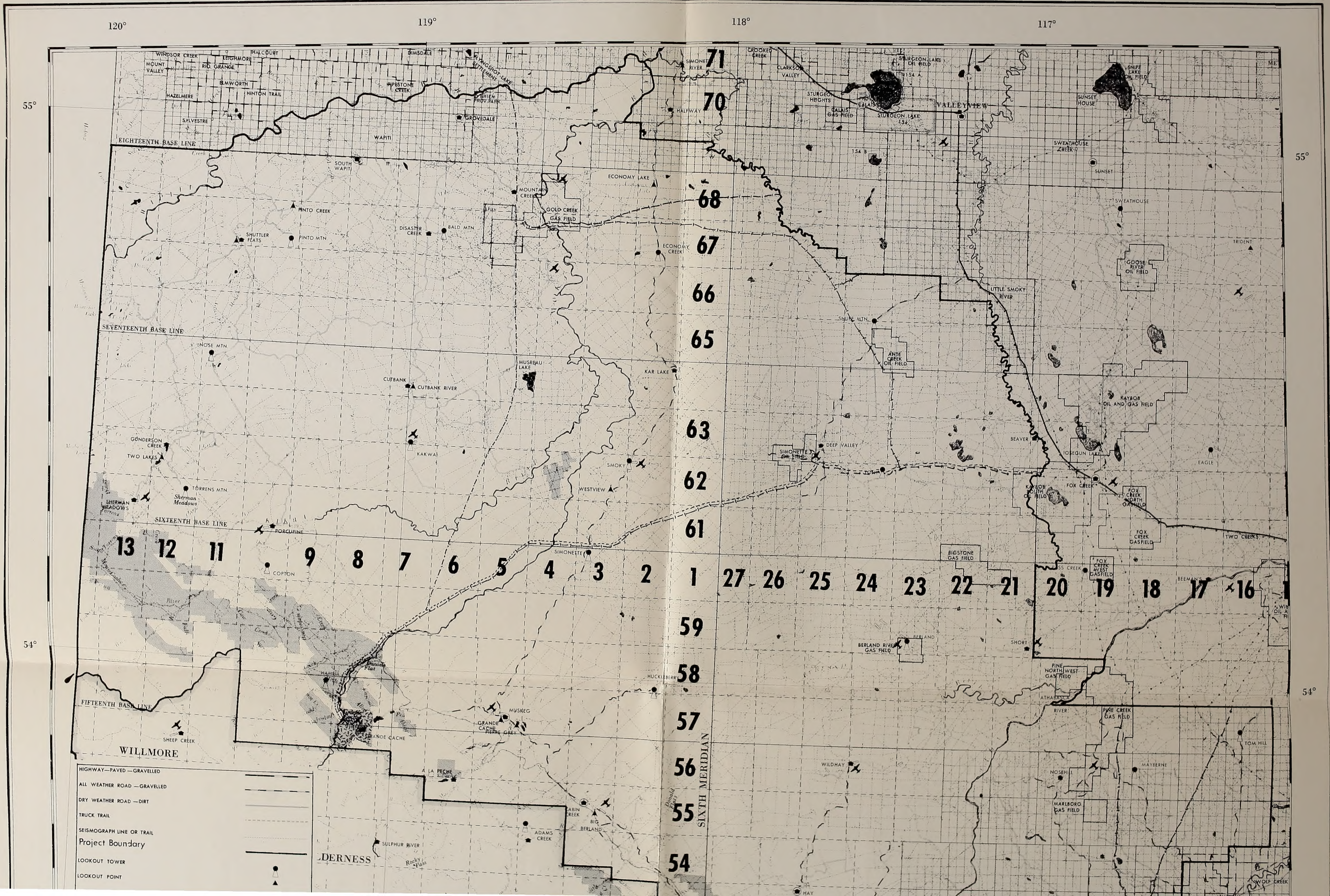
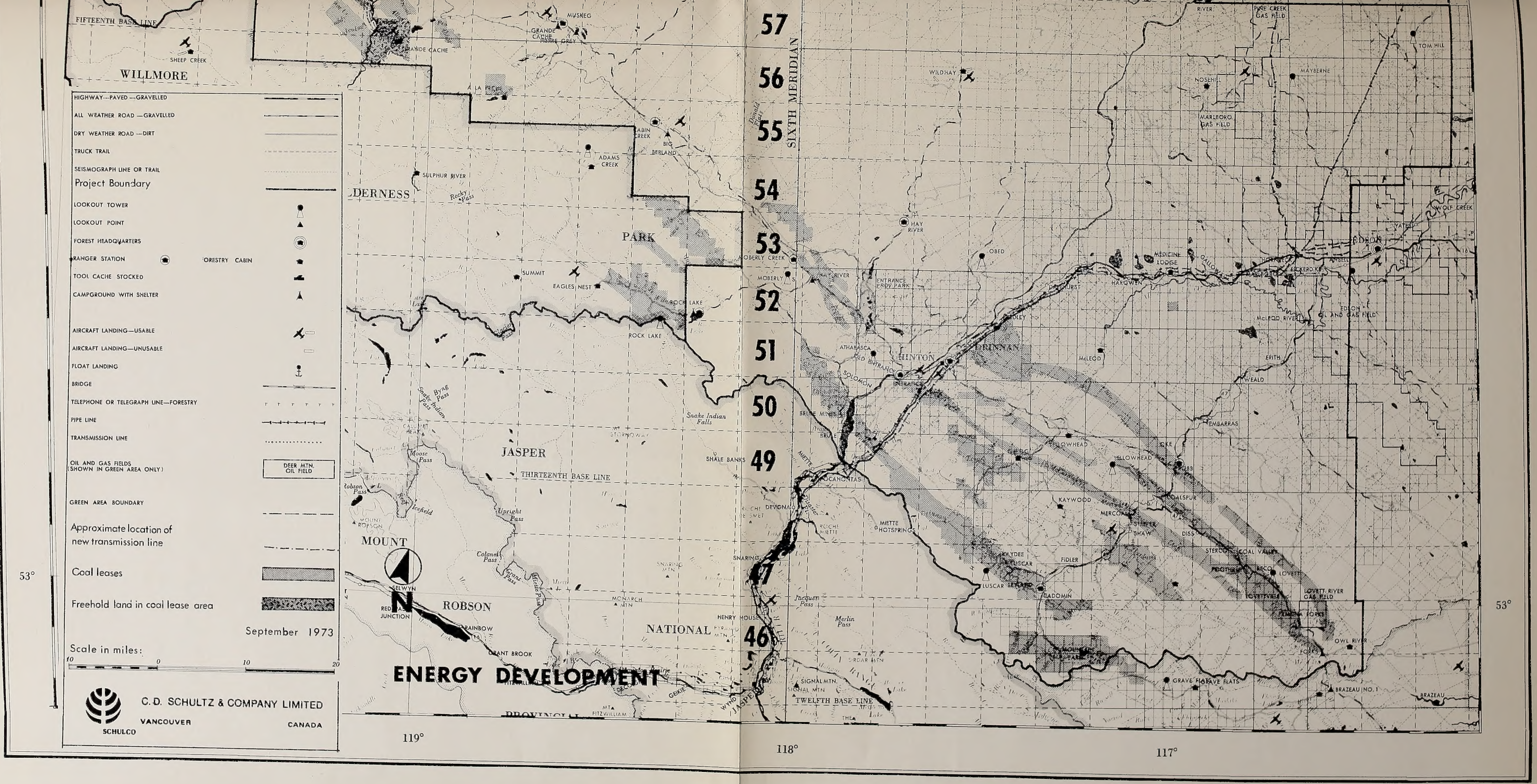
SCALE 1:500,000


120°
119°
118°
117°
55°
54°
WINDSOR CREEK
MOUNT VALLEY
RIO GRANDE
LEIGHMORE
HALCOURT
DIMSDALE
ELMWORTH
HINTON TRAIL
HAZELMERE
SYLVESTRE
PIPESTONE CREEK
O'BRIEN PROV. PARK
GROVEDALE
WAPITI
SOUTH WAPITI
EIGHTEENTH BASE LINE
SEVENTEENTH BASE LINE
SIXTEENTH BASE LINE
FIFTEENTH BASE LINE
SIMONETTE RIVER
CROOKED CREEK
CLARKSON VALLEY
STURGEON LAKE OIL FIELD
STURGEON HEIGHTS
CALAIS GAS FIELD
STURGEON LAKE
VALLEYVIEW
SNIPE LAKE OIL FIELD
SUNSET HOUSE
SWEATHOUSE CREEK
SUNSET
SWEATHOUSE
TRIDENT
GOOSE RIVER OIL FIELD
HALFWAY
ECONOMY LAKE
MOUNTAIN CREEK
GOLD CREEK GAS FIELD
PINTO CREEK
PINTO MTN
SHUTTLER FLATS
DISASTER CREEK
BALD MTN
ECONOMY CREEK
LITTLE SMOKY RIVER
SNIPE MTN
ANTE CREEK OIL FIELD
NOSE MTN
MUSREAU LAKE
CUTBANK
CUTBANK RIVER
KAR LAKE
KAYBOB OIL AND GAS FIELD
GUNDERSON CREEK
TWO LAKES
KAKWA
SIMONETTE OIL FIELD
DEEP VALLEY
BEAVER
JOSEGUN LAKE
EAGLE
SMOKY
WESTVIEW
KAYBOB SOUTH OIL FIELD
FOX CREEK
FOX CREEK NORTH GASFIELD
TORRENS MTN
SHERMAN MEADOWS
Sherman Meadows
PORCUPINE
FOX CREEK GASFIELD
TWO CREEKS
SIMONETTE
BIGSTONE GAS FIELD
FOX CREEK WEST GASFIELD
COPTON
BEEMAN'S
71
70
68
67
66
65
63
62
61
13
12
11
9
8
7
6
5
4
3
2
1
27
26
25
24
23
22
21
20
19
18
17
16
59
58
57
56
55
54
BERLAND RIVER GAS FIELD
BERLAND
SHORT
PINE NORTH WEST GAS FIELD
HAMBLE
HUCKLEBERRY
ATHABASCA RIVER
PINE CREEK GAS FIELD
MUSKEG
GRANDE CACHE
PIERRE GREY
GRANDE CACHE
SHEEP CREEK
WILLMORE
TOM HILL
WILDHAY
NOSEHILL
MAYBERNE
MARLBORO GAS FIELD
LA PECHE
CABIN CREEK
BIG BERLAND
ADAMS CREEK
SULPHUR RIVER
Rocky Pass
SIXTH MERIDIAN
Donald Flats
DERNESS
WOLF CREEK
HAY
HIGHWAY—PAVED —GRAVELLED
ALL WEATHER ROAD —GRAVELLED
DRY WEATHER ROAD —DIRT
TRUCK TRAIL
SEISMOGRAPH LINE OR TRAIL
Project Boundary
LOOKOUT TOWER
LOOKOUT POINT


ENERGY DEVELOPMENT
HIGHWAY—PAVED—GRAVELLED
ALL WEATHER ROAD—GRAVELLED
DRY WEATHER ROAD—DIRT
TRUCK TRAIL
SEISMOGRAPH LINE OR TRAIL
Project Boundary
LOOKOUT TOWER
LOOKOUT POINT
FOREST HEADQUARTERS
RANGER STATION
FORESTRY CABIN
TOOL CACHE STOCKED
CAMPGROUND WITH SHELTER
AIRCRAFT LANDING—USABLE
AIRCRAFT LANDING—UNUSABLE
FLOAT LANDING
BRIDGE
TELEPHONE OR TELEGRAPH LINE—FORESTRY
PIPE LINE
TRANSMISSION LINE
OIL AND GAS FIELDS (SHOWN IN GREEN AREA ONLY)
DEER MTN. OIL FIELD
GREEN AREA BOUNDARY
Approximate location of new transmission line
Coal leases
Freehold land in coal lease area
September 1973
Scale in miles:
10
0
10
20
C.D. SCHULTZ & COMPANY LIMITED
VANCOUVER
CANADA
SCHULCO
N
FIFTEENTH BASE LINE
WILLMORE
WILDERNESS
PARK
JASPER
NATIONAL
MOUNT
ROBSON
PROVINCIAL
THIRTEENTH BASE LINE
TWELFTH BASE LINE
SIXTH MERIDIAN
57
56
55
54
53
52
51
50
49
47
46
53°
119°
118°
117°
53°
SHEEP CREEK
MUSKEG
GRANDE CACHE
PIERRE GREY
LA PECHE
CABIN CREEK
BIG BERLAND
ADAMS CREEK
SULPHUR RIVER
Rocky Pass
SUMMIT
EAGLES NEST
ROCK LAKE
Snake Indian Falls
Snake Indian Pass
Byng Pass
Moose Pass
Robson Pass
Icefield
Upright Pass
Colonel Pass
Grant Pass
SELWYN
RED PASS JUNCTION
RAINBOW
GRANT BROOK
MONARCH MTN
SNARING MTN
SHALE BANKS
HENRY HOUSE
GEIKIE
JASPER
FITZWILLIAM
Jacques Pass
Merlin Pass
SIGNAL MTN.
SIRDAR MTN
WILDHAY
HAY RIVER
OBED
MOBERLY CREEK
ENTRANCE PROV. PARK
ATHABASCA
OLD ENTRANCE
HINTON
SOLOMON
DRINNAN
BRULE
BRULE MINES
POCAHONTAS
MIETTE
ROCHE MIETTE
MIETTE HOTSPRINGS
DEVONA
SNARING
McLEOD
McLEOD RIVER
MEDICINE LODGE
HARGWEN
EDSON
EDSON OIL AND GAS FIELD
ERITH
WEALD
EMBARRAS
LOVETT
LOVETT RIVER GAS FIELD
COALSPUR
ROBB
KAYWOOD
MERCOAL
SHAW
DISS
STERCO
COAL VALLEY
FOOTHILLS
LUSCAR
CADOMIN
FIDLER
GRAVE FLATS
OWL RIVER
BRAZEAU
BRAZEAU NO. 1
NOSEHILL
MAYBERNE
TOM HILL
MARLBORO GAS FIELD
MARLBORO
PINE CREEK GAS FIELD
WOLF CREEK
YATES
FORKS